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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,796	06/30/2003	Yaron Elboim	42P16563	1929

8791 7590 05/25/2005

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EXAMINER	
KIM, HAROLD J	

ART UNIT	PAPER NUMBER
2182	

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/611,796	ELBOIM, YARON	
	Examiner	Art Unit	
	Harold Kim	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 February 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *06302003, 01032005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-21 are presented for examination.

2. The Abstract is insufficient.

3. Figure 1 should be labeled as "Prior Art".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-17 and 20-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Richmond, USPGPUB No. US 2002/0041650 A1.

6. In re claim 1, Richmond shows a method comprising:

determining whether data most recently read out includes dummy data [paragraph 0031, lines 7-12, primitive is dummy data];

selectively skipping over dummy data and reading out contents of a next storage location in response to an overflow state [Receive Ahead, Fig 5; paragraph 0031, lines 12-19]; and

selectively reading out the most previously read out data in response to an underflow state [Transmit Ahead, fig 5].

7. In re claim 2, Richmond shows selectively reading out data of a next storage location in response to most recently read out data not comprising dummy data [All OK, do nothing in fig 5].

8. In re claim 3, Richmond shows selectively reading out data from a next storage location in response to no overflow and no underflow states [All OK, do nothing in fig 5].

9. In re claim 4, Richmond shows the selectively skipping over dummy data comprises skipping over at least one storage location [paragraph 0034, lines 1-13].

10. In re claim 5, Richmond shows wherein the overflow state comprises a number of addressable storage locations between subject storage locations in which write and read operations most recently took place being equal to or greater than a specified margin [Receive ahead = receive address - transmit address > maximum address/2 in fig 5].

11. In re claim 6, Richmond shows wherein the underflow state comprises a number of addressable storage locations between subject storage locations in which write and read operations most recently took place being equal to or less than a specified margin [Transmit ahead = transmit address - received address > maximum address/2 in fig 5].

12. In re claim 7, Richmond shows writing data into storage locations according to a first clock rate, wherein each act of reading out is based on a second clock rate and wherein the first and second clock rates differ [paragraph 0003].

13. In re claim 8, Richmond shows determining the occurrence of a symbol [any character or any defined, paragraph 0011, lines 2-7; and providing the symbol in parallel as data available for writing into storage locations [82, 84, 86, 88 in fig 3].

14. In re claim 9, Richmond shows an apparatus comprising:

at least one integrated circuit [fig 3], wherein the integrated circuit is to include the capability, either alone or in combination with other integrated circuits, to:

determine whether data most recently read out includes dummy data [paragraph 0031, lines 7-12, primitive is dummy data];

selectively skip over dummy data and read out contents of a next storage location in response to an overflow state [Receive Ahead, Fig 5; paragraph 0031, lines 12-19], and

selectively read out the most previously read out data in response to an underflow state [Transmit Ahead, fig 5].

15. The claims 10-16 are rejected same rationale as claims 2-8.

16. In re claim 17, Richmond shows a system [figs 2 and 3] comprising:

a first device [16, 22 in fig 2] to provide an interface with a first computing platform [paragraph 0013];

a second device [36 in fig 2] to provide an interface with a second computing platform [paragraph 0013]; and

an buffer device [24 in fig 2; and fig 3] comprising at least one integrated circuit [24 in fig 2], wherein the integrated circuit is to include the capability, either alone or in combination with other integrated circuits, to:

receive data from the first device [28 in fig 3],

determine whether data most recently read out includes dummy data [paragraph 0031, lines 7-12, primitive is dummy data];

selectively skip over dummy data and read out contents of a next storage location in response to an overflow state [Receive Ahead, Fig 5; paragraph 0031, lines 12-19];

selectively read out the most previously read out data in response to an underflow state [Transmit Ahead, fig 5]; and

provide the read out data to the second device [34, 37, 38 in fig 2].

17. In re claim 20, Richmond shows the first device comprises an input/output device [transmitter 22, and receiver 16 in fig 2].

18. In re claim 21, Richmond shows the second device comprises a communications standard translator [paragraph 0022, lines 6-11].

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

20. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richmond, USPUB no. US 2002/0041650 A1, as applied to claims 1-17 above.

In re claims 18 and 19, Richmond does not specifically shows the buffer device operates in accordance with PCI express and the InfiniBand Architecture. However, PCI express and the InfiniBand Architecture are very well known serial communication

protocols. Richmond shows the buffer device operates in any serial protocol transmission circuitry [paragraph 0013]. Therefore, it would have been obvious to the ordinary skilled person in the art at the time the invention was made to realize PCI express and the InfiniBand Architecture are serial communication protocols that can be applied to Richmond system since Richmond stated that any serial protocols can be applied to Richmond system [paragraph 0013] and for providing more flexible system by allowing it to operate in multiple configurations.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Further references of interest are cited on Form PLO-892, which is attachment to this office action.

Any response to this action should be mailed to:

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

The centralized fax number is 703 872-9306.

The centralized hand carry paper drop off location is:

U.S. Patent and Trademark Office
Customer Service Window, Mail Stop _____
Randolph Building

401 Dulany Street
Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application should be directed to the central telephone number (571) 272-2100.

Direct any inquiries concerning drawing review to the Drawing Review Branch (703) 305-8404.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harold Kim whose telephone number is 571-272-4148. The examiner can normally be reached on Monday-Thursday 6AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Harold J. Kim
Patent Examiner
May 5, 2005/HK

JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER